Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

OCT

U. S. Department of Agriculture
Bureau of Plant Industry

Miscellaneous Circular No. 30

Directory
of
Field Activities
of the
Bureau of Plant Industry

Issued December, 1924

Washington
Government Printing Office
1924

ORGANIZATION OF THE BUREAU OF PLANT INDUSTRY

WILLIAM A. TAYLOR, *Chief of Bureau.*
K. F. KELLERMAN, *Associate Chief of Bureau.*
H. E. ALLANSON, *Assistant to the Chief.*
J. E. ROCKWELL, *Assistant in Charge of Publications.*
W. P. COX, *Assistant in Charge of Accounts.*
F. E. MELOY, *Assistant in Charge of Property.*

Agricultural Technology.—N. A. Cobb, Senior Nematologist, in charge.

Alkali and Drought Resistant Plant Investigations.—T. H. Kearney, Senior Physiologist, in charge.

Arlington Experiment Farm.—E. C. Butterfield, Horticulturist and Superintendent, in charge.

Biophysical Investigations.—G. N. Collins, Senior Botanist, in charge.

Blister-Rust Control.—S. B. Detwiler, Senior Pathologist, in charge.

Cereal Investigations.—C. R. Ball, Senior Agronomist, in charge.

Citrus-Canker Eradication.—Directed by Associate Chief of Bureau.

Cotton, Truck, and Forage Crop Disease Investigations.—H. A. Edson, Senior Pathologist, in charge.

Crop Acclimatization and Adaptation Investigations.—O. F. Cook, Senior Botanist, in charge.

Crop Physiology and Breeding Investigations.—W. T. Swingle, Senior Physiologist, in charge.

Drug, Poisonous, and Oil Plant Investigations.—W. W. Stockberger, Senior Physiologist, in charge.

Dry-Land Agriculture Investigations.—E. C. Chilcott, Senior Agriculturist, in charge.

Economic and Systematic Botany.—F. V. Coville, Senior Botanist, in charge.

Experimental Gardens and Grounds.—J. W. Byrnes, Assistant, in charge.

Fiber-Plant Investigations.—L. H. Dewey, Botanist, in charge.

Forage-Crop Investigations.—C. V. Piper, Senior Agronomist, in charge.

Foreign Seed and Plant Introduction.—David Fairchild, Senior Agricultural Explorer, in charge.

(Concluded on p. 3 of cover.)

U. S. Department of Agriculture
Bureau of Plant Industry

Miscellaneous Circular No. 30

Directory
of
Field Activities
of the
Bureau of Plant Industry

Issued December, 1924

Washington
Government Printing Office
1924

THE ACTIVITIES of the Bureau of Plant Industry are primarily devoted to agricultural research and related experiments, although incidental service, regulatory and extension work, is also under way. The scope of its researches includes the study of destructive plant diseases and the establishment of methods for eradication and control; the improvement of crop, ornamental, or other economic plants by breeding and selection; the introduction of promising seeds and plants from foreign countries; the improvement of methods of plant production; and the utilization of plants of economic value.

The field activities and field stations of the bureau, as distinguished from the laboratory, administrative, and directive work conducted in Washington, may be grouped under three general heads: (1) That carried on in various parts of the country on land owned by the Government and used and controlled by the bureau, (2) that conducted on land rented by the bureau, and (3) that carried on where land and other facilities are provided as part of a joint cooperative plan. The last line of work is conducted, for the most part, in cooperation with the State experiment stations.

Practically every major project of the bureau has its ramifications in one or more of the three groups of field activities. In fact, it is safe to say that fully 60 per cent of all the investigative work is in the field, as distinguished from that carried on in the laboratories in Washington.

DIRECTORY OF FIELD ACTIVITIES OF THE BUREAU OF PLANT INDUSTRY

The titles of the field stations of the Bureau of Plant Industry are shown by boldface type, while the other activities of the bureau in the field and laboratory, usually in cooperation with one of the various States, are set in italics. The locations are shown on the map which appears as Figure 1 (following p. 30).

ALABAMA

Mobile

Citrus-Canker Eradication Field Office.—Address, P. O. Box 1664.

Direction of local activities in the eradication of citrus canker in Alabama. J. W. Pace, chief inspector, in charge.

Robertsdale

Soil-fertility fertilizer experiments with pecans (cooperation with Banning Farm).—W. A. Strickrodt, superintendent, in charge.

ARIZONA

Sacaton

United States Field Station.—On Pima Indian Reservation, 15 miles north of Casa Grande railroad station. Automobile mail stage, which carries passengers, leaves for Sacaton after arrival of morning trains. Transportation arrangements may be made in advance by wiring Mr. King at Casa Grande or by writing him at Sacaton. Telephone, Casa Grande 60–2.

Crop-acclimatization experiments with special reference to cotton, dates, pomegranates, and other crop plants likely to prove of value to the Indians on the Pima Reservation; investigations in maize-breeding methods. C. J. King, assistant agronomist and superintendent, in charge.

Dry-land arboriculture; experiments with dates, pistache, and citrus; pure-seed production. A. R. Leding, chief scientific assistant in charge.

Egyptian-cotton breeding. G. J. Harrison, senior scientific aid in charge.

Experiments with introduced wheat and oats to determine varietal identity, spring and winter habit, and freedom from destructive diseases; varietal comparisons of barley in the nursery and genetic studies on fundamental problems of inheritance in barley. Work directed from Washington office; local supervision by station superintendent.

Tucson

Agricultural Experiment Station (cooperative investigations).—Take street car to station.

Investigations of quality of irrigation water and subsoil and drainage waters in relation to the alkali problem and to sustained production on irrigated lands, particularly Government reclamation projects. J. F. Breazeale, associate biochemist, in charge.

ARKANSAS

Bentonville

United States Ozark Fruit-Disease Laboratory.—1420 South Main Street; two blocks from railroad station. Bentonville is on branch line of Frisco Railroad, 6 miles from Rogers, Ark. The best way to reach Bentonville is to take automobile at Rogers. Hotel accommodations at Bentonville.

Apple-disease control experiments. Leslie Pierce, senior scientific aid, in charge.

Fort Smith

United States Sugar-Plant Field Laboratory.—Office, 206 Federal Building, Rogers Avenue and South Sixth Street; experiment plats, Forty-fifth Street and Grand Avenue. To reach office, take trolley car leaving Missouri Pacific Railroad station, get off at Sixth and Garrison Avenue, and walk one block to Rogers Avenue. To reach experiment plats and laboratory, take Grand Avenue trolley, going to east end of line, walk three blocks to Forty-fifth Street, turn north on Forty-fifth Street, and walk to end of street.

Sorgo-production investigations. H. B. Cowgill, assistant agronomist, in charge.

CALIFORNIA

Bard

United States Yuma Field Station.—Eight miles north of Yuma, Ariz., railroad station. Telephone Mr. Noble regarding instructions for reaching farm or transportation arrangements. May be reached by stage from Yuma to Bard.

Irrigated rotation and tillage experiments; varietal tests of alfalfa, grain sorghums, cotton, barley, wheat, and truck crops; testing and propagation of various ornamental trees and shrubs for distribution; breeding and selection of cotton and alfalfa; fertilizer tests; pasturing experiments; investigations in reclamation of alkali and sandy soils. E. G. Noble, associate agronomist and superintendent, in charge.

United States Acclimatization Garden.—Located on the Bard mesa, 13 miles northeast of Yuma, Ariz., railroad station and 5 miles northeast of Bard post office. Stage from Yuma to Bard. Telegraph address, Yuma, Ariz.; mail address, Bard, Calif. Transportation arrangements may be made in advance by writing or wiring Mr. Gunning.

Acclimatization experiments, especially with cotton and rubber-producing plants; breeding experiments with Egyptian and other cottons. H. A. Gunning, assistant agronomist, in charge.

Berkeley

Agricultural Experiment Station (cooperative investigations).—Located in east part of Berkeley. May be reached by street car from Berkeley station on Southern Pacific Railroad or by ferry and street car from San Francisco.

Investigations of stem rusts of wheat and oats, especially cytology of infection. Ruth F. Allen, associate pathologist, in charge.

Investigations of cereal smuts and methods of control, especially varietal resistance. (The field experiments are conducted at Davis.) F. N. Briggs, assistant pathologist, in charge.

Biggs

Biggs Rice Field Station.—Four miles northwest of Biggs. Transportation arrangements may be made by telephoning Mr. Jones.

Rice investigations, including varietal, breeding, cultural, irrigation, and fertilizer experiments and water-grass control. J. W. Jones, associate agronomist, in charge.

Chico

United States Plant Introduction Garden.—About 4 miles south of Chico. May be reached by auto or by Government bus, which makes a daily trip to the station from Chico. Telephone.

Propagation and testing of new plant introductions. J. E. Morrow, superintendent, in charge.

Grape investigations, including propagation and studies of varieties, habits of growth, characteristics and merits of fruit and adaptability

Work directed from Washington office. F. L. Husmann, superintendent, Napa, has local supervision.

Bulb investigations, particularly amaryllis, Palestine iris, and Ratibida columnaris, including studies of habits of growth, methods of culture, propagation, handling, curing, and adaptability to conditions. Work directed from Washington office; local supervision by station superintendent.

Legume-inoculation experiments, intended to demonstrate the behavior of various types of root-nodule bacteria toward different species and varieties of leguminous plants. Work directed from Washington office; local supervision by station superintendent.

Colfax

Cooperative grape experiments, including studies of varietal adaptability and resistant stocks and their adaptability to different soils and congeniality with different varieties. Located on property of Louis Cortopassi, 1 mile southwest of railroad station. May be reached by auto.

Davis

State Experiment Farm (cooperative investigations).—About 1 mile from Davis railroad station. Bus line available to farm, or transportation arrangements may be made in advance by notifying the superintendent.

Agronomic experiments with wheat, oats, and barley, including varietal comparisons, breeding experiments, and genetic studies, and studies on resistance to smuts, especially bunt, or stinking smut, of wheat. V. H. Florell, associate agronomist, in charge.

Nut investigations, including nut breeding, in cooperation with the University of California. W. L. Howard, professor of pomology, has local supervision.

Elk Grove

Cooperative grape experiments, including studies of varietal adaptability and resistant stocks and their adaptability to different soils and congeniality with different varieties. Located on property of Colonial Grape Products Co. about two blocks from the railroad station.

Fresno

United States Experiment Vineyard.—Four miles southeast of Fresno. Electric railway runs within 1½ miles of the vineyard. Mr. Snyder's headquarters may be reached by taking "Recreation Park" car from either Santa Fe or Southern Pacific Railroad station, getting off at Ninth Street, and walking one block north.

Grape investigations. Elmer Snyder, associate pomologist, in charge. Residence, 3930 Kerckhoff Avenue. Telephone 7695–W.

United States Fruit-Disease Field Laboratory.—Located on grounds of Sunmaid Raisin Growers' Association. Telephone 3383–J.

Investigations of physiological diseases of orchards and vineyards. W. S. Ballard, pathologist, in charge.

Galt

Cooperative grape experiments, including studies of varietal adaptability and resistant stocks and their adaptability to different soils and congeniality with different varieties. Located on the Brick Kiln Vineyard tract (property of H. E. Kleinsorge, president and general manager of Western Fruit Co., Sacramento), one-half mile from the Galt railroad station.

Indio

United States Experiment Date Garden.—Automobile available to station; arrangements may be made by telephoning from Indio.

Experiments in culture of dates and handling of the crop, including breeding and testing of new varieties. A. J. Shamblin, associate horticulturist and superintendent, in charge.

Experiments in cotton breeding in Coachella Valley of California. H. G. McKeever, junior agronomist, in charge. During growing season may be reached by mail at Box 121, Indio, or by telegraph, care of A. L. Wood, Indio.

Lacjac

Cooperative grape experiments, including studies of varietal adaptability and resistant stocks and their adaptability to different soils and congeniality with different varieties. Located on the P. and W. Samuels property, near the Santa Fe and Southern Pacific Railroad stations at Lacjac. Two miles southwest of Parlier and may be easily reached from that town.

Los Angeles

United States Horticultural Field Office.—601 Federal Building, 301 North Spring Street. Telephone, 884–457.

Investigations of fruit transportation, handling, and storage. C. W. Mann, pomologist in charge.

Oakville

United States Experiment Vineyard.—About 13 miles north of Napa and 2 miles south of Oakville.

Grape investigations. F. L. Husmann, superintendent, in charge. Residence, 842 Seminary Street, Napa. Telephone, 636–J.

Palo Alto

Leland Stanford Junior University (cooperative investigations).—About 2 miles from Palo Alto railroad station. May be reached by trolley.

Fruit-breeding investigations. W. F. Wight, associate botanist, in charge. Telephone, 1687-R.

Pasadena

Cooperative experiments located at San Dimas, Glendora, and Santa Paula.

Nursery-stock investigations, especially with fruit and rose stocks. L. B. Scott, pomologist, in charge. Residence, 101 Stevenson Avenue.

Quincy (Plumas County)

United States Forest-Pathology Field Station.—Eight miles from Quincy (on fair road). May be reached by hired conveyance from Quincy.

Investigations of forest-tree diseases. F. L. Saltzman, superintendent, in charge.

Riverside

Citrus Experiment Station (cooperative investigations).—Station about 2 miles from Riverside. May be reached by taking experiment-station bus leaving Riverside post office at 8.30 a. m. and 1 p. m. Telephone listed in name of J. T. Barrett, director.

Investigations of curly-top of sugar beets. Eubanks Carsner, associate pathologist, in charge.

Investigations of western or yellow blight of tomato. Michael Shapovalov, associate pathologist, in charge.

Citrus progeny investigations in connection with fruit improvement through bud selection. A. D. Shamel, senior physiologist, in charge.

United States Horticultural Field Office.—Room 8, Federal Building, 580 West Seventh Street. Telephone, 599.

Investigations in fruit improvement through bud selection. A. D. Shamel, senior physiologist, in charge.

Sacramento

Cooperative Seed-Testing Laboratory.—Located at State Department of Agriculture, 1217 L Street. Telephone.

Testing agricultural seeds for mechanical purity and germination; identification of seeds of cultivated plants and weeds; testing seeds submitted in connection with enforcement of seed-importation act. W. S. Wilkinson, jr., collaborator, in charge; Grace M. Cole, assistant botanist.

State Department of Agriculture.—Located at 1217 L Street. Telephone. Cooperative control of white-pine blister rust. George A. Root, assistant pathologist and State leader, in charge.

United States Horticultural Field Office.—Room 409, Native Sons' Building, Eleventh and J Streets. Telephone, 2038–W.

Investigations in fruit production. C. F. Kinman, associate pomologist, in charge.

Nut-culture investigations. M. N. Wood, associate pomologist, in charge.

Cooperative grape experiments, including studies of varietal adaptability and resistant stocks and their adaptability to different soils and congeniality with different varieties. Located just outside of Sacramento on the W. S. Kendall property on the American River bottom, between the city levee and the American River. Take a J Street car from downtown to Fifty-third Street, turn to left on F Street, then to right across Southern Pacific Railroad track; vine plantings located to the left, in the southwest corner of the Kendall tract. Mr. Kendall's office is 910 Fifth Street, Sacramento.

San Diego

United States San Diego Acclimatization Garden.—Located at Torrey Pines, 4 miles north of La Jolla. Station may be reached by auto from San Diego or by taking regular bus line from San Diego to La Jolla and hiring auto from there. Transportation arrangements may be made in advance by wiring or writing Mr. Marshall, general delivery, La Jolla.

Acclimatization and adaptation experiments with cotton, corn, tropical crop plants, and rubber-producing plants. C. G. Marshall, assistant agronomist and superintendent, in charge.

San Francisco

United States Crop-Physiology Field Office.—1813 Pierce Street. Telephone listed.

Smyrna-fig and pistache culture investigations; securing and recording data from experiments carried on through cooperators. G. P. Rixford, associate physiologist, in charge.

United States Forest-Pathology Field Office.—Located at Forest Service headquarters, Ferry Building.

Investigation of forest and ornamental tree diseases; direction of forest-pathology activities for National Forest Districts 4 and 5 in cooperation with Forest Service. E. P. Meinecke, pathologist, in charge.

Shafter

United States Cotton Field Station.—Two miles north of Shafter railroad station. Transportation arrangements may be made in advance with Mr. Camp.

Investigations in crop acclimatization, with special reference to cotton breeding. W. B. Camp, associate agronomist, in charge.

Nursery-stock investigations, including propagation of fruit trees by root cuttings and selected seedlings; experiments in propagation of rose stocks. Mr. Camp has local supervision of the work.

Experiments in water requirements of cotton and other crop plants. Homer Martin, head gardener, in charge.

COLORADO

Akron

United States Dry-Land Field Station.—About 4 miles east of Akron, on Golden Belt Highway. May be reached by auto, or transportation arrangements may be made by telephoning Mr. Brandon.

Dry-land crop rotations and production; forestry investigations and use of sheep in rotations. Both in cooperation with Colorado State Experiment Station. J. F. Brandon, associate agronomist and superintendent, in charge.

Fruit-production investigations. Mr. Brandon has local supervision of the work.

Denver

United States Forest-Pathology Field Laboratory.—Located in State Museum, near Capitol, about 1 mile from Union Station. May be reached by street car.

Investigation of forest-tree rusts. Ellsworth Bethel, associate pathologist, in charge.

Fort Collins

College of Agriculture (cooperative investigations).—About 1 mile from Fort Collins railroad station. May be reached by street car.

Barberry-eradication campaign to locate and destroy cultivated and escaped bushes of the common barberry, which spreads the black stem rust of cereals. E. A. Lungren, assistant pathologist and State leader, in charge. Located in Botany Building.

United States Sugar-Plant Field Experiments.—817 East Elizabeth Street. Take College Avenue trolley from center of town (two blocks from railroad station) and get off at East Elizabeth Street.

Sugar-beet seed production with reference to better types of beets. W. W. Tracy, jr., assistant agronomist, in charge.

Greeley

Colorado Potato Experiment Station.—About 3½ miles northeast of Greeley railroad station. Transportation arrangements may be made by telephoning superintendent.

Potato investigations. W. C. Edmundson, associate horticulturist and superintendent, in charge.

Potato-disease investigations. H. G. MacMillan, pathologist, in charge. Residence, 1211 Eighth Street. Telephone, Greeley 568–W. (Laboratory at 1211 Eighth Street.)

Lamar

Soil-fertility fertilizer experiments with sugar beets.—C. A. Peterson, county agent, in charge. Located in Masonic Building.

Rocky Ford

United States Sugar-Plant Field Experiments.—Two blocks from railroad station. Office located in Chamber of Commerce Building.

Investigations in methods of sugar-beet culture and of disease control; testing strains for disease resistance. G. H. Coons, pathologist, in charge.

Soil-fertility fertilizer experiments with sugar beets.—See W. F. Droge, county agent, Chamber of Commerce Building, or A. W. Skuderna, superintendent of research, American Beet-Sugar Co.

CONNECTICUT

New Haven

Agricultural Experiment Station.—May be reached by street car. Telephone.

Cooperative control of white-pine blister rust. W. O. Filley, agent and State leader, in charge. May be reached at office of station forester.

Windsor

Tobacco Station of Agricultural Experiment Station (cooperative investigations).—Located 1 mile west of Windsor; may be reached by going west on Bloomfield Avenue to top of Cook Hill, then taking left fork. Station is first farm on right.

Investigations of root diseases and fertilizer requirements of tobacco. H. F. Murwin, agent, in charge. Mr. Murwin is at the tobacco station between April 1 and October 1 and may be reached by telephone.

FLORIDA

Baldwin

Soil-fertility fertilizer experiments with pecans.—J. H. Wells, in charge.

Canal Point

United States Sugar-Plant Field Experiments.—May be reached by taking bus at foot of Clematis Avenue (opposite Palms Hotel), West Palm Beach, at 7.45 a. m., for Canal Point, and walking one-half mile north.

Investigations of sugar-cane diseases and seedling studies with reference to immune varieties. C. P. Sheffield, agent, in charge.

Coconut Grove

United States Plant Introduction Garden.—Located at Chapman Field, 6 miles south of Coconut Grove. May be reached by auto and communicated with by telephone from Coconut Grove.

Propagation and testing of new plant introductions. W. A. Patten, superintendent, in charge.

Investigations with rubber-producing plants. Alfred Keys, assistant horticulturist, has supervision of the work.

Eustis

United States Citrus Field Experiments.—Located at end of Center Street, outskirts of town. No telephone.

Hybridization of citrus fruits; testing citrus hybrids; breeding new types to meet special conditions. E. M. Savage, assistant plant breeder, in charge.

Gainesville

Citrus-Canker Eradication Field Office.—Located at agricultural experiment station.

Direction of local activities in the eradication of citrus canker in Florida. Wilmon Newell, commissioner, State Plant Board, in charge.

Jacksonville

Soil-fertility fertilizer experiments with pecans.—See H. H. Simmons, 25 North Ocean Street.

Lake Alfred

Citrus Experiment Station, Agricultural Experiment Station (cooperative investigations).—Three miles southwest of Lake Alfred. May be reached by auto.

Investigations in citrus production and bud selection. J. H. Jeffries, suprintendent, has local supervision of the work.

Miami

United States Plant Introduction Garden.—Located on Brickell Avenue, one-half mile south of center of town. May be reached by telephone from Miami.

Testing subtropical plants. Edward Simmonds, superintendent, in charge.

Tomato disease investigations. F. J. Pritchard, associate physiologist, in charge.

Mount Dora

Experimental culture of volatile-oil-bearing plants.—M. M. Javens, field assistant, in charge. Plantings located about 2 miles northeast of Mount Dora. Mr. Javens may be reached by telephone.

Orlando

United States Citrus-Disease Field Laboratory.—Located on northwest corner of Fair Grounds, near West Amelia and Parramore Streets, 1 mile from railroad station. Telephone, 413.

Investigations of citrus and subtropical fruit diseases. J. R. Winston, associate pathologist, in charge.

Sanford

United States Truck-Crop Disease Field Laboratory.—Located in basement of courthouse May be reached by telephone.

Investigations of diseases of celery and lettuce; soil-fertility fertilizer experiments with celery and lettuce. A. C. Foster, assistant pathologist, in charge.

GEORGIA

Albany

Soil-fertility fertilizer experiments with pecans.—J. L. Pelham, assistant pomologist, in charge. Located in Room 205, Federal Building.

Athens

State College of Agriculture (cooperative investigations).—College located about 10-minute ride by street car from center of town.

Investigations of fall-sown cereals, including studies of varieties, breeding, dates and rates of seeding, tillage, rotations, and fertilizers. R. R. Childs, agent, in charge. Located in agronomy department.

Soil-fertility fertilizer experiments with cotton.—A. P. Winston, farm superintendent, in charge.

Cairo

United States Sugar-Plant Field Experiments.—Two and one-half miles north of Cairo. May be reached by driving north on Broad Street to fork in road, then taking left road 2 miles to corrugated-iron sirup mill on left. Office located in courthouse.

Studies of sugar-cane varieties for sirup production, methods of making sirup on the farm, and use of by-products. P. A. Yoder, associate technologist, in charge.

Experiment

Soil-fertility fertilizer experiments with cotton, corn, and wheat (cooperation with Agricultural Experiment Station).—R. P. Bledsoe, agronomist, in charge.

Fort Valley

United States Peach-Disease Field Laboratory.—Located two squares from Union Station, in insect laboratory of Bureau of Entomology. (Cooperation with State Board of Entomology.) Telephone, 53. Hotel accommodations in Fort Valley.

Investigations of peach diseases. L. M. Hutchins, associate pathologist, and J. C. Dunegan, junior pathologist, in charge.

Marshallville

Soil-fertility fertilizer experiments with peaches.—L. M. Hutchins, associate pathologist, in charge. Address, Fort Valley, Ga.; telephone, 53.

Philema

United States Pecan Field Station.—Located 15 miles northeast of Albany, on Georgia Southwestern & Gulf Railway. Office, Room 205, Federal Building, Albany.

Nut-culture investigations. J. L. Pelham, assistant pomologist, in charge.

Savannah

United States Plant Introduction Garden.—Twelve miles west of Savannah, on Ogeechee Road. May be reached by auto or communicated with by long-distance telephone from Savannah, calling for Bamboo Garden.

Bamboo investigations. D. A. Bisset, superintendent, in charge.

Thomasville

United States Pecan-Disease Field Laboratory.—Located in post-office building.

Investigations on pecan diseases; soil-fertility and fertilizer experiments with pecans. J. B. Demaree, associate pathologist, in charge.

Tifton

Georgia Coastal Plain Experiment Station (cooperative investigations).—Located northwest of Tifton. Take State Highway No. 7 for 1½ miles; then turn to road on left.

Crop-rotation studies; tobacco fertilizer and variety tests; effect of length of day on plants. J. C. Hart, associate agronomist, in charge. Mr. Hart may be reached by telephone.

IDAHO

Aberdeen

Aberdeen Substation, Agricultural Experiment Station (cooperative investigations).—Three-fourths mile from railroad station. May be reached by conveyance or on foot, or transportation arrangements may be made by telephoning substation.

Agronomic experiments and physiological and chemical studies with cereals under irrigation, particularly with spring wheat, oats, and barley. G. A. Wiebe, assistant agronomist, in charge.

Moscow

Agricultural Experiment Station and College of Agriculture (cooperative investigations).—About one-half mile from railroad station. May be reached by auto or on foot, or transportation arrangements may be made by telephoning experiment station.

Laboratory, field, and greenhouse studies on stripe rust of cereals and grasses. C. W. Hungerford, agent and pathologist, in charge.

Cooperative control of white-pine blister rust. Henry Schmitz, collaborator, in charge. May be reached at School of Forestry.

ILLINOIS

Bloomington

United States Cereal-Pathology Field Experiments (cooperation with Funk Bros. Seed Co.).—Office about one-fourth mile west of Chicago & Alton Railroad station, or three-fourths mile west of Big Four station. May be reached by street car. Transportation arrangements may be made in advance with Mr. Holbert. Experiment fields located 10 miles from town.

Investigations of root, stalk, and ear rots of corn, including studies of infection, soil infestation, and control methods, principally by physical selection of seed ears in the field and on the germinator, by breeding, and by soil treatments. J. R. Holbert, agronomist, in charge.

Chicago

Markets Pathology Field Laboratory.—Office, 505 City Hall Square Building, 139 North Clark Street. Telephone, State 8520. Laboratory located in botany department, University of Chicago. Telephone, Midway 800. To reach office take surface car and transfer to Clark Street car going north; get off at either Washington or Randolph Streets (office is located between these two streets). To reach laboratory, take car marked "Cottage Grove" going south. (Those marked "No. 1" turn at Fifty-fifth Street; the others give transfers to Fifty-fifth Street.) Get off at University Avenue and walk two blocks south.

Investigations of plant diseases causing spoilage of vegetables; instruction of food-products inspectors in identification of diseases of vegetables found in storage, market, and transit and the interpretation of their significance as causes of spoilage in vegetable products. G. B. Ramsey, associate pathologist, in charge.

Investigation of diseases of fruits on market; advising with and instructing food-products inspectors in identification of diseases of fruits found in storage, market, and transit and the interpretation of their significance as causes of spoilage in fruit products. Lowell F. Butler, junior pathologist, in charge.

Urbana

College of Agriculture, Extension Service (cooperative investigations).—Barberry eradication office is in post-office building, about four blocks from Big Four Railroad station.

Barberry-eradication campaign to locate and destroy cultivated and escaped bushes of the common barberry, which spreads the black stem rust of cereals. G. C. Curran, associate pathologist and State leader, in charge.

INDIANA

La Fayette

Agricultural Experiment Station and College of Agriculture, Purdue University (cooperative investigations).—Located at West La Fayette, about 1½ miles from La Fayette. May be reached by street car from La Fayette.

Pathologic, physiologic, chemical, and genetic studies of root, stalk, and ear rots of field and sweet corn, especially relating to accumulations of iron and aluminum, and remedial soil treatments. G. N. Hoffer, agent and pathologist, in charge.

Research on leaf rusts of wheat, rye, barley, and corn, including determinations of alternate hosts, physiologic forms, and host resistance. E. B. Mains, agent and pathologist, in charge.

Barberry-eradication campaign to locate and destroy cultivated and escaped bushes of the common barberry, which spreads the black stem rust of cereals. W. E. Leer, agent and State leader, in charge.

Cooperative Seed-Testing Laboratory.—Located at Agricultural Experiment Station, Purdue University. Telephone.

Testing agricultural seeds for mechanical purity and germination; identification of seeds of cultivated plants and weeds; testing samples submitted in connection with enforcement of seed importation act. G. I. Christie, collaborator, in charge; Jane C. Kinsella, assistant botanist.

South Bend

Experimental culture of Japanese mint.—W. C. Steenburg, cooperator, in charge. Route 1, Box 72–C, South Bend. Mr. Steenburg may be reached by auto and telephone from South Bend. Experimental plats may be reached by New York Central Railroad from South Bend to Steenburg. (Poor train service.)

Investigations in the adaptation of truck crops to organic soils. Work directed from Washington office; local supervision by W. C. Steenburg, owner of the property.

IOWA

Ames

Agricultural Experiment Station and College of Agriculture (cooperative investigations).—About 1 mile west of railroad station and may be reached by interurban or street car.

Breeding spring-oat varieties by pure-line selection. L. C. Burnett, agent and chief in cereal breeding, in charge. Experiments carried on at agronomy farm, about 2 miles southwest of town. Mr. Burnett lives in Ames; may be reached at hall of agriculture.

Corn-breeding experiments and extensive varietal comparisons. M. T. Jenkins, assistant agronomist, in charge. May be reached at hall of agriculture.

Studies on crown rust of oats in the laboratory, greenhouse, and field. S. M. Dietz, assistant pathologist, in charge. May be reached at botany department, in central building.

Barberry-eradication campaign to locate and destroy cultivated and escaped bushes of the common barberry, which spreads the black stem rust of cereals. M. A. Smith, agent and State leader, in charge. May be reached at botany department.

KANSAS

Colby

Colby Branch Station, Agricultural Experiment Station (cooperative investigations).—One mile west of Colby on main road. Transportation arrangements may be made by telephoning Mr. Barnes from Colby.

Dry-land crop rotation and production. B. F. Barnes, agent, in charge.

Garden City

Garden City Branch Station, Agricultural Experiment Station (cooperative investigations).—About 4 miles northeast of Garden City. Transportation arrangements may be made by telephoning F. A. Wagner, the superintendent, from Garden City.

Dry-land crop rotation and production. E. H. Coles, agent and superintendent, in charge.

Hays

Fort Hays Branch Station, Agricultural Experiment Station (cooperative investigations).—About one-half mile south of Hays. May be reached by auto, or transportation arrangements may be made by telephoning L. C. Archer, the superintendent, from Hays.

Dry-land crop rotations and production; use of commercial fertilizers and soil-nitrate studies. A. L. Hallsted, associate agronomist, in charge.

Agronomic investigations of wheat, oats, barley, corn, and grain sorghums, including varietal comparisons; experiments on rates, dates, and methods of seeding; seed-bed preparations and rotation studies; special tillage experiments for the prevention of winterkilling. A. F. Swanson, assistant agronomist, in charge.

Field tests of miscellaneous forage crops suitable for dry-land conditions, principally sorghums, alfalfa, grasses, and tepary beans. R. E. Getty, associate agronomist, in charge.

Manhattan

Agricultural Experiment Station (cooperative investigations).—About 2 miles northwest of railroad station. Campus may be reached by street car or auto.

Agronomic investigations of wheat and oats, especially breeding and genetic studies, including experiments in breeding wheat for winter hardiness, early maturity, stiffness of straw, and yield; breeding oats for disease resistance and yield. J. H. Parker, agent and professor of plant breeding, in charge. Located in agronomy building.

Agronomic investigations of corn, especially breeding and genetic studies. A. M. Brunson, associate agronomist, in charge. Located in agronomy building.

Pathological studies of the smuts of corn, sorghum, and oats; leaf rust of wheat; and take-all, including studies on varietal resistance. L. E. Melchers, agent and plant pathologist, in charge. Located in the botany department.

Testing of varieties of alfalfa. S. C. Salmon, professor of farm crops, College of Agriculture, has local supervision of the work.

LOUISIANA

Baton Rouge

Agricultural Experiment Station (cooperative investigations).—Located at the university in town and may be reached on foot. Experiment farm is 1½ miles out and may be reached by street car.

Agronomic experiments with corn, including varietal comparisons, breeding experiments, and experiments on the relation of husk characters to damage by weevils and corn earworms. H. F. Stoneberg, assistant agronomist, in charge.

State Department of Agriculture.

Direction of local activities in the eradication of citrus canker in Louisiana. W. E. Anderson, State entomologist, in charge.

Crowley

Rice Experiment Station (cooperative investigations).—One mile west of town, on good road. Transportation arrangements may be made by telephoning station superintendent.

Introduction and comparison of rice varieties from foreign countries; botanical and hybridization studies; experiments in shock construction; and cultural, fertilizer, irrigation, and rotation experiments. J. M. Jenkins, assistant agronomist, in charge.

Franklin

Soil-fertility fertilizer experiments with sugar cane.—See F. E. Staebner, one-half block north of post-office building, or Columbia Sugar Co., 2½ miles north of Franklin.

MAINE

Augusta

State Forest Service.—Located in statehouse and may be reached by street car. Telephone.

Cooperative control of white-pine blister rust. W. O. Frost, assistant pathologist and State leader, in charge. May be reached at office of forest commissioner.

Presque Isle

Aroostook State Farm of the Maine Agricultural Experiment Station (cooperative investigations).—Located 1¾ miles south of railroad station. Transportation arrangements may be made by telephoning Mr. Lombard at State farm (No. 154–12). Government office closed from October 15 to March 31.

Potato investigations; soil-fertility fertilizer experiments with potatoes. P. M. Lombard, assistant horticulturist, in charge. (See V. C. Beverley, county agent, regarding fertilizer experiments.)

United States Potato-Disease Laboratory.—Located just south of Normal School; about one-half mile from Presque Isle House. Occupied only during summer growing season. Mr. Schultz may be reached by telephoning the laboratory (No. 154–4) or the Aroostook farm (No. 154–2).

Investigations of potato diseases and experiments with control measures. E. S. Schultz, associate pathologist, in charge.

MARYLAND

Bell (post office, Glenn Dale)

United States Plant Introduction Garden.—Sixteen miles from Washington, D. C., on Washington, Baltimore & Annapolis Electric Railway. In going by electric railway, get off at Bell Station. May also be reached by Pennsylvania Railroad to Glenn Dale, then by auto or on foot 1¼ miles south, or by automobile from Washington via Washington-Baltimore Boulevard to Bladensburg, Md., turning to right, going through Lanham to Glenn Dale, then 1¼ miles south.

Propagation, testing, and detention of new plant introductions. Edward Goucher, superintendent, in charge.

United States Horticultural Field Station.—May be reached by following directions for the United States Plant Introduction Garden at Bell, given above.

Fruit-tree, rose stock, and nut-culture investigations. Guy E. Yerkes, associate horticulturist, in charge.

Fruit-production investigations, including breeding and culture of small fruits. George M. Darrow, associate pomologist, in charge.

Rose breeding and, in cooperation with the Office of Cereal Investigations, work with barberries, including assembling, classification, and breeding experiments with native and introduced species and hybrids of Berberis. B. Y. Morrison, junior horticulturist, in charge.

Bethesda

United States Citrus Detention Station.—May be reached by street car or auto from Washington, D. C., or transportation may be arranged by getting in touch with E. May, jr., Greenhouse No. 3, Fourteenth and B Streets NW., Washington, D. C.

Experimental propagation of citrus plants. Supervised from Washington office.

Lanham

Maize heredity studies.—J. H. Kempton, assistant botanist, in charge.

Upper Marlboro

Branch Station, Agricultural Experiment Station (cooperative investigations).—One-fourth mile from center of town, on county fair grounds. Mr. Brown is at the station from March to October. No telephone.

Crop-rotation studies; tobacco fertilizer and variety tests; technical studies in nutrition of the tobacco plant. D. E. Brown, field assistant, in charge.

MASSACHUSETTS

Boston

Blister-Rust Control Field Office.—Room 402, Appraisers' Stores Building, 408 Atlantic Avenue. About five minutes' walk north on Atlantic Avenue from South Station, or may be reached by elevated trains marked "North or South Station via Atlantic Avenue," getting off at Rowe's Wharf Station and walking one block south. Telephone, Main 2842.

Field direction of blister-rust control activities in the Northeastern and Lake States. E. C. Filler, associate pathologist, in charge. Mr. Filler's residence and telephone listed in directory.

State Department of Agriculture.—Room 136, statehouse. About eight minutes' walk from railroad station. Telephone.

Cooperative control of white-pine blister rust. C. C. Perry, agent and State leader, in charge. May be reached at office of commissioner of agriculture.

East Wareham

United States Cranberry-Disease Field Laboratory.—Mail address, East Wareham; railroad station, Onset Station, on New York, New Haven & Hartford Railroad, about 50 miles southeast of Boston. From New York City most conveniently reached by Fall River boat and New York, New Haven & Hartford Railroad. Laboratory located at Massachusetts State Cranberry Experiment Station, or bog, about 1 mile from the railroad station or post office; go one-half mile north on main road to Agawan Garage, where sign directs to "State Bog." May be communicated with by telephone.

Investigations of cranberry diseases, especially false-blossom, and fruit rots; also investigations of fruit rots of strawberries, cane-blight of currants, and blueberry diseases. N. E. Stevens, pathologist, in charge.

Cooperative testing of blueberry hybrids. H. J. Franklin, of the Massachusetts Agricultural Experiment Station, in charge.

MICHIGAN

East Lansing

Agricultural College and Agricultural Experiment Station (cooperative investigations).—East Lansing is about 2½ miles from Lansing. Take street car in Lansing marked "College," going east on Michigan Avenue to end of line. College campus is about two blocks from there.

Barberry-eradication campaign to locate and destroy cultivated and escaped bushes of the common barberry, which spreads the black stem rust of cereals. W. F. Reddy, associate pathologist and State leader, in charge. Located in botany building.

Cultural methods, crop rotations, soil, and diseases of sugar beets; soil-fertility fertilizer experiments with sugar beets. J. G. Lill, assistant agronomist, in charge. Located in agricultural hall.

Plant breeding and variety testing with sugar beets. E. E. Down, agent, in charge.

Plant breeding with fiber flax and experiments in retting with bacteria. Brittain B. Robinson, junior plant breeder, in charge.

Investigation of bean diseases, including breeding of disease-resistant varieties. F. V. McKenna, assistant scientific aid, has local supervision of the work. Located in botany department.

McMillan

United States Pea-Disease Field Laboratory.—Twelve miles from McMillan. No hotel at McMillan, but hotel accommodations may be secured at Newberry, 20 miles from the field station. Arrangements for lodging or transportation may be made by telephoning Mr. Brotherton.

Breeding peas for disease resistance. Wilbur Brotherton, jr., assistant physiologist, in charge. Work carried on only during summer growing season.

South Haven

South Haven Branch Station, Agricultural Experiment Station (cooperative investigations).—One-half mile from railroad station; about 10 minutes' walk. Telephone from South Haven.

Nursery-stock and rosaceous-fruit breeding investigations. Stanley Johnston, superintendent, in charge.

MINNESOTA

St. Paul

Agricultural Experiment Station and College of Agriculture (cooperative investigations).—University Farm is about 4 or 5 miles from either Minneapolis or St. Paul. Take street car marked "Como-Harriet," get off at Doswell Avenue and walk east one-third mile, or get off at Carter Avenue and walk north one-third mile.

Barberry-eradication campaign to locate and destroy cultivated and escaped bushes of the common barberry, which spreads black stem rust of cereals. L. W. Melander, associate pathologist and State leader, in charge. Located in plant-pathology department.

Genetic studies on wheat for rust resistance and winter hardiness. O. S. Aamodt, associate pathologist, in charge. Located in plant-pathology department.

Field, greenhouse, and laboratory studies on stem rust of wheat and other cereals; life history and epidemiology studies of flax rust. E. C. Stakman, agent and pathologist, in charge. Located in plant-pathology department.

State Department of Agriculture.—Located in State Capitol.

Cooperative control of white-pine blister rust. A. G. Ruggles, cooperator in charge. May be reached at office of State entomologist, University Farm. (Directions for getting to University Farm given above.)

MISSISSIPPI

Agricultural and Mechanical College

Citrus-Canker Eradication Field Office.—Agricultural and Mechanical College.

Direction of local activities in the eradication of citrus canker in Mississippi. R. W. Harned, State entomologist, in charge.

McNeill

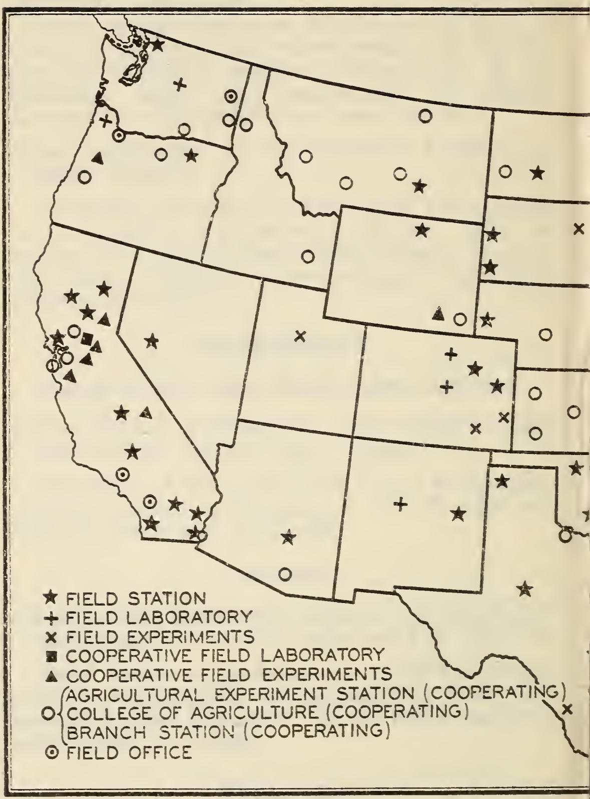
Coastal-Plain Experiment Station (cooperative investigations).—About 1 mile south of McNeill.

Field tests of promising new forage crops; pasture experiments in cooperation with Bureau of Animal Industry. H. R. Reed, assistant agronomist, in charge.

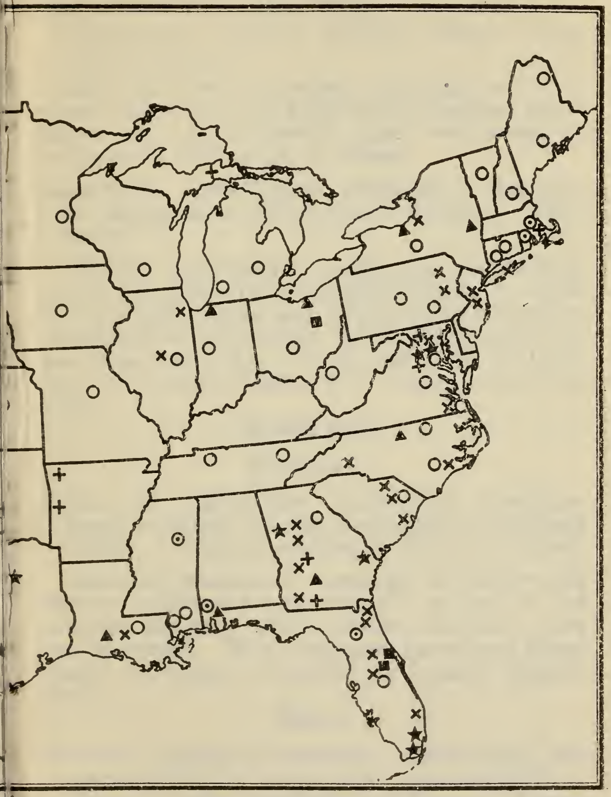
Poplarville

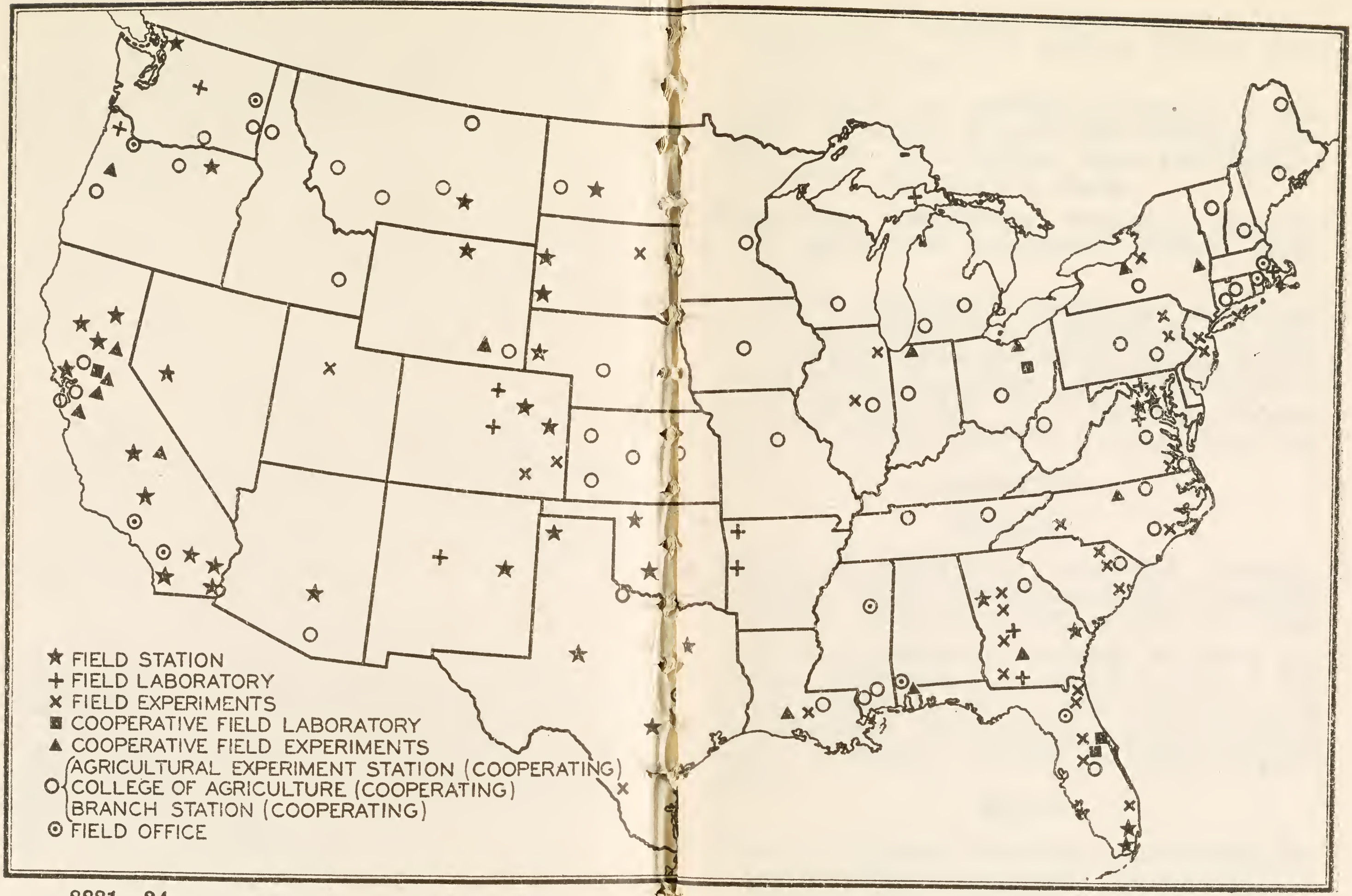
South Mississippi Experiment Station (cooperative investigations).

Testing blueberry hybrids. W. S. Anderson, of the Mississippi Agricultural Experiment Station, in charge.

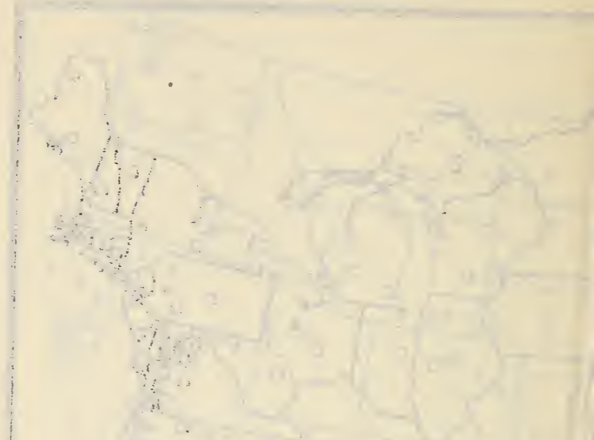

★ FIELD STATION
+ FIELD LABORATORY
× FIELD EXPERIMENTS
■ COOPERATIVE FIELD LABORATORY
▲ COOPERATIVE FIELD EXPERIMENTS
○ AGRICULTURAL EXPERIMENT STATION (COOPERATING)
COLLEGE OF AGRICULTURE (COOPERATING)
BRANCH STATION (COOPERATING)
⊙ FIELD OFFICE

8881—24




★ FIELD STATION
+ FIELD LABORATORY
× FIELD EXPERIMENTS
■ COOPERATIVE FIELD LABORATORY
▲ COOPERATIVE FIELD EXPERIMENTS
○ AGRICULTURAL EXPERIMENT STATION (COOPERATING)
COLLEGE OF AGRICULTURE (COOPERATING)
BRANCH STATION (COOPERATING)
⊙ FIELD OFFICE

8881—24



MISSOURI

Columbia

Agricultural Experiment Station (cooperative investigations).—Within walking distance from railroad station.

Agronomic and breeding investigations with wheat; correlation of yield with botanical characters, etc. L. J. Stadler, agent and assistant professor in field crops, in charge.

Cooperative Seed-Testing Laboratory.—Located at Agricultural Experiment Station. Telephone.

Testing agricultural seeds for mechanical purity and germination; identification of seeds of cultivated plants and weeds; testing samples submitted in connection with enforcement of seed importation act. W. C. Etheridge, collaborator, in charge; Regina B. Schulte, junior botanist.

MONTANA

Bozeman

College of Agriculture (cooperative investigations).—About 2 miles southwest of railroad station. May be reached by auto or on foot.

Barberry-eradication campaign to locate and destroy cultivated and escaped bushes of the common barberry, which spreads the black stem rust of cereals. W. L. Popham, agent and State leader, in charge. Located in botany department.

Havre

Northern Montana Substation, Agricultural Experiment Station (cooperative investigations).—About 7 miles southwest of Havre. Transportation arrangements may be made by telephoning Mr. Morgan from Havre.

Dry-land crop rotation and production. G. W. Morgan, associate agronomist and superintendent, in charge.

Alfalfa, sweet clover, and dry-land forage crop investigations. N. F. Woodward, assistant agronomist, in charge.

Huntley

United States Huntley Field Station.—Four miles east of railroad station. Telephone Mr. Hansen regarding instructions for reaching field station or for transportation arrangements.

Irrigated rotation and tillage experiments, varietal tests, livestock investigations, pasturing experiments, and investigations in reclamation of alkali lands. Dan Hansen, associate agronomist and superintendent, in charge.

Dry-land crop rotation and production. A. E. Seamans, associate agronomist, in charge.

Missoula

State Department of Agriculture.—Located in Chamber of Commerce Building. Telephone.

Cooperative control of white-pine blister rust. C. H. Johnson, assistant pathologist and State leader, in charge. May be reached at office of chief of division of horticulture.

Moccasin

Judith Basin Substation, Montana Agricultural Experiment Station (cooperative investigations).—About 1½ miles west of Moccasin on main graded highway. Transportation arrangements may be made by telephoning station.

Dry-land crop rotation and production. Albert Osenbrug, associate agronomist and superintendent, in charge.

Field tests of forage crops, principally alfalfa; including also sorghums, grasses, and root crops. N. F. Woodward, assistant agronomist, in charge.

Agronomic investigations of cereals (wheat, oats, barley, corn, and flax), including varietal comparisons; rate, date, and method of seeding; and breeding and selection. Also breeding research on wheat to develop an awnless winter-hardy variety and special studies on prevention of winterkilling in wheat. R. W. May, assistant agronomist, in charge.

NEBRASKA

Lincoln

College of Agriculture (cooperative investigations).—Located at University Farm, about 3 miles northeast of center of city. May be reached by taking street car marked "Agricultural College" on O Street.

Barberry-eradication campaign to locate and destroy cultivated and escaped bushes of the common barberry, which spreads the black stem rust of cereals. A. F. Thiel, associate pathologist and State leader, in charge. Located in plant-pathology department.

Mitchell

United States North Platte Field Station.—Five miles east of railroad station. Telephone Mr. Holden regarding instructions for reaching field station or for transportation arrangements.

Irrigated rotation and tillage experiments, varietal tests of alfalfa and other crops, experiments with potatoes and investigations relating to the control of potato diseases, pasturing experiments, and livestock investigations. J. A. Holden, associate agronomist and superintendent, in charge.

North Platte

North Platte Experiment Substation (cooperative investigations).—About 2 miles south of railroad station. Transportation arrangements may be made by telephoning W. P. Snyder, the superintendent.

Dry-land crop rotation and production. L. L. Zook, associate physiologist, in charge.

Agronomic and breeding experiments with corn and experiments in small-grain production. G. F. Sprague, field assistant, in charge.

NEVADA

Fallon

United States Newlands Field Station.—One mile south of railroad station. Telephone Mr. Headley regarding instructions for reaching field station or for transportation arrangements.

Variety tests of field crops under irrigation, especially grain; tests of horticultural crops; and field and laboratory experiments in the reclamation of alkali lands. F. B. Headley, associate agronomist and superintendent, in charge.

Experiments with rubber-producing plants. L. A. Waitzinger, assistant botanist, in charge.

NEW HAMPSHIRE

Concord

State Forestry Department.—Located in State Capitol Annex, north on Main Street, about five minutes' walk from railroad station. Telephone.

Cooperative control of white-pine blister rust. L. E. Newman, agent and State leader, in charge. May be reached at office of State forester.

NEW JERSEY

New Brunswick

Soil-fertility fertilizer experiments with potatoes (in cooperation with Agricultural Experiment Station).—W. H. Martin, in charge.

Whitesbog

Blueberry investigations.—Whitesbog is 4 miles east of Browns Mills, N. J., for which point trains leave from the Market Street Ferry Station in Philadelphia; and 11 miles west of Lakehurst, N. J., on the Central Railroad of New Jersey. Auto and hotel accommodations may be obtained at either Browns Mills or Lakehurst.

Blueberry investigations, including growing and bringing to maturity, for purposes of observation and selection, the blueberry hybrids produced by the United States Department of Agriculture. (This work is conducted on the property of Joseph J. White, Inc.). S. B. Hutton, superintendent, in charge.

NEW MEXICO

Albuquerque

United States Forest-Pathology Field Office.—Located at 244 Korber Building. Field camp 20 miles from Albuquerque (on poor road). May be reached by hired conveyance from there. No person continually in residence at camp.

Investigation of forest and ornamental tree diseases; direction of forest-pathology activities for National Forest District 3, in cooperation with Forest Service. W. H. Long, associate pathologist, in charge.

Tucumcari

United States Dry-Land Field Station.—About 2 miles northeast of Tucumcari. Transportation arrangements may be made by telephoning Mr. Burnham.

Dry-land crop rotations and production; variety tests and rate and date of seeding investigations of cotton; steer feeding and range-cattle feeding experiments in cooperation with New Mexico College of Agriculture and Bureau of Animal Industry. D. R. Burnham, associate agronomist, in charge.

NEW YORK

Albany

Conservation Commission.—Located at 23 Pearl Street, about five minutes' walk from railroad station. May be reached by street car.

Cooperative control of white-pine blister rust. A. F. Amadon, agent and State leader, in charge. May be reached at office of superintendent of lands and forests.

Baldwinsville

United States Tobacco Field Experiments.—About 1 mile west of center of town. May be reached by conveyance.

Fertilizer and crop-rotation tests, with special reference to tobacco. G. W. Harris, principal scientific assistant, in charge.

Ithaca

Agricultural Experiment Station, Cornell University (cooperative investigations).—Take street car east to campus and walk one-half mile east to Agricultural College.

Varietal comparisons of wheat, oats, and barley; extensive breeding operations and studies of inheritance of characteristics in wheat; and extensive oat-breeding experiments. W. T. Craig, agent, in charge.

Investigations of cytology and embryogeny of corn. L. F. Randolph, associate cytologist, in charge. Located in botany department.

Riverhead

Soil-fertility fertilizer experiments with potatoes.—C. R. Inglee, county agent, in charge. Located in courthouse.

Williamson

Horticultural Field Experiments (cooperative investigations).—About 2 miles southeast of Williamson. May be reached by electric railway from Rochester to Williamson; then by auto.

Investigations in the adaptation of truck crops to organic soils. H. C. Thompson, collaborator, in charge. Located at Ithaca, N. Y.

NORTH CAROLINA

Beaufort

Soil-fertility fertilizer experiments with sweet potatoes.—A. H. Harris, county agent, in charge.

Greensboro

Experimental culture of Japanese mint.—Vick Chemical Co., cooperator, in charge. May be reached by telephone. Good street-car service available from Greensboro.

Oxford

Tobacco Station of Agricultural Experiment Station (cooperative investigations).—One mile southwest of Oxford; may be reached by auto. Mr. Moss may be communicated with by telephone at his residence.

Seed selection; fertilizer and crop-rotation tests; experiments in tobacco curing and tobacco diseases. E. G. Moss, agronomist, in charge.

Shelby

Soil-fertility fertilizer experiments with cotton.—R. E. Lawrence, county agent, in charge.

Willard

Coastal-Plain Branch Station (coöperative investigations).—One mile north of railroad station. Transportation arrangements may be made by telephoning station superintendent.

Muscadine-grape investigations. C. T. Dearing, associate horticulturist and superintendent, in charge.

NORTH DAKOTA

Fargo (post office, Agricultural College)

Agricultural College and Agricultural Experiment Station (cooperative investigations).—About 1½ miles northwest of city. Take street car marked "Agricultural College."

Barberry-eradication campaign to locate and destroy cultivated and escaped bushes of the common barberry, which spreads the black stem rust of cereals. G. C. Mayoue, associate pathologist and State leader, in charge. Located in biology building.

Pathologic experiments on diseases of flax (except flax rust), including flax wilt, two kinds of flax canker, and the pasmo disease. W. E. Brentzel, assistant pathologist, in charge. Located in biology building.

Dickinson

Dickinson Substation, Agricultural Experiment Station (cooperative investigations).—About 1 mile northwest of Dickinson. Transportation arrangements may be made by telephoning Mr. Moomaw.

Dry-land crop rotation and production. Leroy Moomaw, associate agronomist and superintendent, in charge.

Agronomic investigations of cereals, principally wheat, corn, barley, flax, and corn, including varietal comparisons; rates, dates, and methods of seeding; breeding and selection; also special study of northern short-season corns and of weed control in flax. R. W. Smith, associate agronomist, in charge.

Mandan

United States Northern Great Plains Field Station.—About 1 mile southwest of Mandan. May be reached by auto, or transportation arrangements may be made by telephoning station.

Dry-land crop rotations and production; study of the effect of grazing upon native vegetation; variety testing; breeding and cultural experiments with fruits, ornamental plants, and garden vegetables; investigations and cooperative shelter-belt distribution with farmers. J. M. Stephens, agriculturist and superintendent, in charge. Robert Wilson, associate agronomist, in charge of shelter-belt investigations; J. T. Sarvis, associate agronomist, in charge of agronomic and grazing investigations; W. P. Baird, associate agronomist, in charge of horticultural investigations.

Extensive agronomic and genetic studies on seed flax, including breeding for resistance to flax wilt and rust; cultural methods to control weeds; a study of water requirements of flax; and growing of flax-wheat mixtures. Also limited agronomic studies on varietal comparisons of wheat, oats, and barley. J. C. Brinsmade, jr., assistant agronomist, in charge.

OHIO

Columbus

College of Agriculture (cooperative investigations).—About 3 miles from Columbus. May be reached by street car.

Barberry-eradication campaign to locate and destroy cultivated and escaped bushes of the common barberry, which spreads the black stem rust of cereals. J. W. Baringer, associate pathologist and State leader, in charge. Located in botany department.

North Ridgeville

Timothy-Breeding Field Experiments (cooperative investigations).—Two miles west of North Ridgeville; 3 miles east of Elyria. Most easily reached from the latter place, electric cars leaving there every hour. Get off at stop No. 70; experimental plats located just across road.

Breeding and developing strains of timothy, alfalfa, clover, soybeans, and field peas. M. W. Evans, associate agronomist, in charge.

Wooster

United States Raspberry-Disease Field Laboratory (cooperative investigations).—Located at State Experiment Station, about 2½ miles from railroad station. May be reached by auto; no street cars.

Investigations of mosaic diseases of raspberry, particularly their control by roguing and their distribution. R. B. Wilcox, assistant pathologist, in charge.

OKLAHOMA

Lawton

United States Dry-Land Field Station.—About 1½ miles north of Lawton. Telephone Mr. Osborn regarding transportation arrangements or take Fort Sill trolley car to station.

Dry-land crop rotations and production; variety tests and rate and date of seeding investigations of cotton; study of chinch-bug control in cooperation with Bureau of Entomology. W. M. Osborn, associate agronomist and superintendent, in charge.

Cotton-breeding experiments, with special attention to the production and maintenance of supplies of pure seed of improved varieties of cotton. Work under supervision of H. C. McNamara, assistant agronomist and superintendent, Greenville, Tex.

Woodward

United States Dry-Land Field Station.—About 1 mile southwest of Woodward. Telephone Mr. Chilcott regarding transportation arrangements.

Dry-land crop rotations and production, horticultural and vineyard investigations, forestry investigations, dairy investigations in cooperation with Bureau of Dairying. E. F. Chilcott, agriculturist and superintendent, in charge.

Extensive agronomic investigations of grain sorghums and broomcorn, including varietal comparisons; studies of rates and dates of seeding and rates of spacing rows and of plants in the row; hybridization and selection; and genetic studies. J. B. Sieglinger, associate agronomist, in charge.

OREGON

Corvallis

Agricultural Experiment Station (cooperative investigations).—About 1 mile from center of town and may be reached by street car. Telephone listed.

Agronomic investigations of forage crops, including vetches, clovers, grasses, alfalfa, and miscellaneous legumes; plat experiments in studies of rates and dates of seeding; varietal comparison; studies in hybridization and selection. H. A. Schoth, assistant agronomist, in charge.

Cooperative control of white-pine blister rust. L. N. Goodding, assistant pathologist and State leader, in charge. Located in department of botany and plant pathology.

Cooperative Seed-Testing Laboratory.—Located at Agricultural Experiment Station.

Testing agricultural seeds for mechanical purity and germination; identification of seeds of cultivated plants and weeds; testing samples submitted in connection with enforcement of seed-importation act. G. R. Hyslop, collaborator, in charge; Bertha C. Hite, assistant botanist.

Gervais

Experimental culture of Japanese mint.—G. J. Moisan, cooperator, in charge. Experimental plats 3 miles from Gervais. May be reached by auto.

Hermiston

United States Umatilla Field Station.—About 2 miles north of railroad station. Telephone Mr. Dean regarding transportation arrangements.

Irrigated rotation and tillage experiments; alkali and fertilizer pot tests; field commercial-fertilizer tests; variety tests of corn and alfalfa; tests of pasture grasses and irrigation methods; experiments in hog and sheep feeding. H. K. Dean, associate agronomist and superintendent, in charge.

Moro

Sherman County Branch Station, Agricultural Experiment Station (cooperative investigations).—One-fourth mile east of town. Telephone Mr. Stephens regarding transportation arrangements.

Extensive agronomic investigations of dry-land cereals, chiefly wheat, oats, and barley, and methods of cereal production, including varietal comparisons; breeding studies; classification studies; rates, dates, and methods of seeding; tillage studies; seed-bed preparations; fallowing methods; and rotation effects. Also minor pathologic studies on control of bunt, or stinking smut, of wheat. D. E. Stephens, agronomist and superintendent, in charge.

Portland

United States Forest-Pathology Field Office.—Located at 428 New Post Office Building.

Investigation of forest and ornamental tree diseases; direction of forest-pathology activities for National Forest District 6, in cooperation with Forest Service. J. S. Boyce, pathologist, in charge.

Seaside

United States Cranberry-Disease Field Laboratory.—Mail address, Box 524, Seaside, Oreg.; railroad station, Clatsop, Oreg. Laboratory located in large wooden building across road from Clatsop Station. Two bus lines from Portland to Seaside pass within a quarter of a mile of the laboratory.

Investigation of cranberry diseases, especially methods of control by spraying and handling. H. F. Bain, assistant pathologist, in charge.

PENNSYLVANIA

Allentown

Soil-fertility fertilizer experiments with potatoes.—A. L. Hacker, county agent. Located in Chamber of Commerce Building.

Ephrata

State Branch Station (cooperative investigations).—Station located on farm of Mrs. George Hibshman, one-half mile north of Ephrata, on Denver-Reading road. May be reached by auto or communicated with by telephone.

Improvement in methods of handling tobacco seed beds and curing; tobacco breeding, including development of strains and types of high and low nicotine content; fertilizer tests. Otto Olson, associate agronomist, in charge.

Freeland

United States Potato-Wart Field Experiments.—Address, 407 Center Street. Located two blocks from Lehigh Valley Railroad station; interurban cars from Hazelton make a stop there. Telephone listed under "Potato-Wart Laboratory."

Investigations of potato-wart disease; fertilizer scab control studies. Freeman Weiss, associate pathologist, in charge. See J. D. Hutchison, county agent, Chamber of Commerce Building, Wilkes-Barre, regarding fertilizer experiments.

State College

Soil-fertility fertilizer experiments with grass (cooperation with Agricultural Experiment Station).—C. F. Noll, professor of agronomy, in charge.

PORTO RICO

Mayaguez

Agricultural Experiment Station (cooperative investigations).—About one-half mile north of central part of Mayaguez, or a little more than a mile from the railroad station. May be reached by conveyance or on foot.

Production of binder-twine fiber, including plant breeding with henequen and sisal. Rafael Vidal, agent, in charge.

RHODE ISLAND

Providence

State Board of Agriculture.—Room 129, statehouse. About 5 minutes' walk from railroad station. Telephone.

Cooperative control of white-pine blister rust. O. C. Anderson, agent and State leader, in charge. May be reached at office of secretary of State Board of Agriculture.

United States Forest-Pathology Field Office.—Located in basement of Maxcy Hall, Brown University, about 1 mile from railroad station; may be reached by street cars from Exchange Place near there.

Investigation of diseases of shade and ornamental trees and shrubs, in cooperation with Brown University. J. F. Collins, pathologist, in charge.

SOUTH CAROLINA

Darlington

Soil-fertility fertilizer experiments with cotton.—J. M. Napier, county agent, in charge.

Florence

Pee Dee Substation, Agricultural Experiment Station (cooperative investigations).—Located about 3 miles north of railroad station, or 2½ miles from center of town. May be reached by auto.

Investigations with peanuts and sweet potatoes, including crop improvement by selection and methods of culture and handling; soil-fertility fertilizer experiments with cotton. R. E. Currin, superintendent, has local supervision of the investigations.

James Island

Cotton-breeding experiments.—Mail address (during growing season), Charleston, S. C., Route 1, Box U. S. D. A.; telegraph address, Charleston, S. C.; telephone listed under Sandiford Bee. Transportation arrangements should be made in advance with Mr. Simpson.

Cotton-breeding experiments. D. M. Simpson, assistant agronomist, in charge.

Timmonsville

United States Tobacco Field Experiments.—One mile northwest of Timmonsville, on old road leading from Timmonsville to Lamar. May be reached by conveyance. Mr. Young may be seen at his residence in Timmonsville; he has no telephone.

Fertilizer and crop-rotation tests with tobacco and other crops. James P. Young, scientific aid, in charge.

SOUTH DAKOTA

Ardmore

United States Dry-Land Field Station.—About 2 miles northwest of Ardmore. Telephone Mr. Kelso regarding transportation arrangements.

Dry-land crop rotations and production; study of the effect of grazing upon native vegetation; swine and dairy investigations in cooperation with Bureau of Animal Industry; shelter-belt investigations. F. L. Kelso, associate agronomist and superintendent, in charge.

Brookings

College of Agriculture, Extension Service (cooperative investigations).—About 1 mile northeast of center of town. May be reached by auto or on foot.

Barberry-eradication campaign to locate and destroy cultivated and escaped bushes of the common barberry, which spreads the black stem rust of cereals. R. O. Bulger, agent and State leader, in charge. May be reached at Extension Service.

Newell

United States Belle Fourche Field Station.—About 2½ miles northwest of railroad station. Telephone to Mr. Aune regarding transportation arrangements.

Irrigated rotation and tillage experiments, varietal tests, livestock investigations, pasturing experiments, and investigations in the drainage of seeped lands. Beyer Aune, associate agronomist and superintendent, in charge.

Dry-land crop rotation and production. O. R. Mathews, associate agronomist, in charge.

Redfield

United States Forage-Crop Field Experiments.—About 1 mile southwest of Redfield.

Developing varieties of alfalfa and investigating cultural methods with the same; also conducting agronomic investigations with other forage crops and experiments with silage. Samuel Garver, associate agronomist, in charge.

Webster

Experimental culture of fixed-oil crop.—Joseph Paul, collaborator, in charge. Address, Rural Route 5. Plantings located 12 miles south of Webster. May be reached by auto.

TENNESSEE

Clarksville

Tobacco Station, Agricultural Experiment Station (cooperative investigations).—Address, Rural Free Delivery 2, Clarksville. Two miles from Clarksville on Nashville Pike. May be reached by auto. No telephone.

Investigations on fertilizer requirements and systems of crop rotation adapted to culture of dark fire-cured tobacco. H. W. Jones, in charge.

Knoxville

Agricultural Experiment Station (cooperative investigations).—About 10 minutes' ride by street car from railroad station.

Agronomic and genetic studies of corn, including varietal comparisons, cultural studies, and breeding experiments. L. S. Mayer, assistant agronomist, in charge.

TEXAS

Austin

Citrus-Canker Eradication Field Office.—State Department of Agriculture.

Direction of local activities in the eradication of citrus canker in Texas. J. M. Del Curto, collaborator, in charge.

Big Spring

United States Dry-Land Field Station.—One mile north of Big Spring. Telephone Mr. Keating regarding transportation arrangements.

Dry-land crop rotations and production, variety tests and rate and date of seeding investigations of cotton, variety tests of fruits and grapes, steer-feeding experiments in cooperation with Bureau of Animal Industry. F. E. Keating, associate agronomist and superintendent, in charge.

Chillicothe

State Substation No. 12 (cooperative investigations).—About 4½ miles south of Chillicothe, which is the nearest post office and railroad station. The substation is on the main highway from town, south and a little west.

Field experiments with miscellaneous dry-land forage crops, principally sorghums and cowpeas, special attention being given to the breeding of new sorghum varieties. D. L. Jones, agent, in charge.

Dalhart

United States Dry-Land Field Station.—Three miles southwest of Dalhart. Telephone Mr. Clemmer regarding transportation arrangements.

Dry-land crop rotations and production, variety tests and rate and date of seeding investigations of cotton; forestry investigations in cooperation with Forestry Service. H. J. Clemmer, associate agronomist and superintendent, in charge.

Greenville

United States Cotton-Breeding Field Station.—Five miles north of Greenville. Telephone the station superintendent at 402–J or 402–W regarding transportation arrangements.

General cotton-breeding work, with special attention to the production and maintenance of supplies of pure seed of improved varieties. H. C. McNamara, assistant agronomist and superintendent, in charge.

Laredo

United States Date Experiments.—May be communicated with by telephone at Richter Ranch (August C. Richter, proprietor). About 5 miles southwest of Laredo.

Testing date varieties adapted to the upper Rio Grande region. H. E. Watson, collaborator, in charge.

San Antonio

United States San Antonio Field Station.—About 5 miles south of San Antonio. Street car runs within 1 mile of station; may also be reached by auto from railroad station. Telephone Mr. Ratliffe for instructions for reaching field station.

Rotation and tillage experiments; breeding, cultural, variety, and boll-weevil tests with cotton; experiments in the control of cotton root-rot; adaptation and variety tests of sorghum, legumes, and grasses; and adaptation, variety, and cultural tests of economic and ornamental plants. G. T. Ratliffe, associate agronomist an superintendent, in charge.

UTAH

Salt Lake City

United States Sugar-Plant Field Experiments.—Address 962 South Eighth Street West. Telephone, Wasatch 3371. May be reached from Union Station. Walk two blocks south; take trolley car No. 15 going west on Second South Street and get off at Fayette Avenue. From Denver & Rio Grande and Western Pacific station walk one block north and take trolley car No. 15, as directed above.

Sugar-beet seed breeding investigations; soil-fertility fertilizer experiments with sugar be D. A. Pack, associate agronomist, in charge

Sugar-beet nematode investigations. Gerald Thorne, assistant nematologist, in charge.

Agronomic investigations of sugar beets. S. B. Nuckols, associate agronomist, in charge.

VERMONT

Montpelier

State Forest Service.—Located in statehouse, opposite railroad station. Telephone.

Cooperative control of white-pine blister rust. J. E. Riley, jr., assistant pathologist and State leader, in charge. May be reached at office of forest commissioner.

VIRGINIA

Rosslyn

Arlington Experiment Farm.—Field laboratory of the Bureau of Plant Industry and several other bureaus of the Department of Agriculture. About 2 miles southwest of Washington, D. C. May be reached by auto or Arlington Farm bus, which makes four trips daily from the Department of Agriculture in Washington. E. C. Butterfield, horticulturist and superintendent, may be communicated with by telephone through Main 4650, Branch 440, Washington.

Biophysical investigations.—Maize heredity studies. G. N. Collins, senior botanist, in charge. Work directed from Washington office.

Cereal investigations.—General agronomic investigations on fall-sown wheat, rye, barley, and oats. J. W. Taylor, associate agronomist, directly in charge.

Wheat investigations, including (1) the testing of standard varieties and of strains originated by breeding; (2) determinations of the best time and rate of seeding and of seed-bed preparation; (3) breeding experiments to improve varieties, especially in resistance to leaf rust; (4) studies of the inheritance of various characters in the wheat plant; and (5) physiological experiments on the effect of seed treatments and on various reactions in the growth of the plant. C. E. Leighty, agronomist, and W. J. Sando, associate agronomist, in charge.

Investigations of the relative yielding power of the different varieties and strains of fall-sown oats, of varietal competition among the more distinct types of winter oats, of the development of hardier strains by hybridization and subsequent selection, of variation in the Fulghum variety when sown in the fall, and of whether the so-called false wild oat in the Fulghum variety results from mutation or from natural crossing. T. R. Stanton, agronomist, in charge.

Agromonic investigations of winter barley, including extensive varietal comparisons of domestic and introduced material, breeding and selection studies with special reference to winter hardiness and to utilization under southern conditions, studies on the effect of length of the light period, and the effect on germination and stand caused by seed treatments to control barley smuts. H. V. Harlan, agronomist, and M. N. Pope, associate agronomist, in charge.

Greenhouse and field studies on wild rice, including seed production and distribution, methods of handling the seed to maintain viability under artificial conditions, and methods of breeding. C. E. Chambliss, associate agronomist, in charge.

Investigations of rye, including (1) varietal experiments with standard varieties and strains developed by selection; (2) breeding experiments, especially for resistance to leaf rust; (3) studies on the fertilization of the rye plant, with special reference to the problem of self-sterility; and (4) genetic studies on resistance (or susceptibility) to leaf rust, and on wheat-rye hybrids. C. E. Leighty, agronomist, in charge.

Genetic studies on corn, including the mode of inheritance of smut resistance, chlorophyll deficiencies, endosperm defects, and other heritable characters, and a study of the principles of corn breeding. F. D. Richey and C. H. Kyle, agronomists, in charge.

Greenhouse investigation of varietal resistance of wheat to flag smut. Marion A. Griffiths, assistant pathologist, in charge.

Field and greenhouse studies on the varietal susceptibility of wheat to loose smut. Greenhouse experiments with fungicides and thermal baths for control of loose smut of wheat. V. F. Tapke, associate pathologist, in charge.

Investigation in laboratory, greenhouse, and field on the susceptibility of barley to loose smut under varying conditions of inoculation. W. H. Tisdale, pathologist, in charge.

Physiologic studies on stinking smut of wheat, loose smut of barley, and corn smut under conditions of controlled temperature and humidity in the greenhouse. W. H. Tisdale, pathologist, in charge.

Greenhouse investigation of the relation of soil and air temperature, soil moisture, and other growth factors to the stripe disease of barley and the nematode or eelworm disease of wheat and rye. R. W. Leukel, associate pathologist, in charge.

Field and greenhouse investigation of certain bacterial diseases of cereals, especially corn. C. S. Reddy, associate pathologist, in charge.

Physiologic and chemical investigations in laboratory and greenhouse on the relation of total acidity, titratable acidity, hydrogen-ion concentration, and other chemical and physiological factors to disease resistance. Annie M. Hurd-Karrer, associate physiologist, in charge.

Cotton, truck, and forage crop disease investigations.—Field and storage experiments in connection with investigation of diseases of sweet potatoes; greenhouse experiments in connection with breeding disease-resistant varieties of beans. L. L. Harter, pathologist, in charge.

Production of seed and roots of rust-resistant asparagus for distribution. W. W. Gilbert, pathologist, in charge.

Breeding tomatoes for disease resistance and production of stock seed of new varieties for distribution; investigation of methods for control of tomato diseases. F. J. Pritchard, associate physiologist, in charge.

Investigations of storage diseases of vegetables and effect of temperature and humidity conditions in relation thereto. J. L. Lauritzen, associate pathologist, in charge.

Field experiments in connection with investigations of diseases of ornamental plants. Freeman Weiss, associate pathologist, in charge.

Greenhouse experiments in connection with investigations of potato diseases. E. S. Schultz, associate pathologist, in charge.

Greenhouse experiments in connection with breeding of disease-resistant varieties of peas. Wilbur Brotherton, jr., assistant physiologist, in charge.

Field experiments in connection with investigation of watermelon diseases. Charles Drechsler, associate pathologist, in charge.

Drug, poisonous, and oil plant investigations.—Experimental culture of medicinal-oil and closely allied plants. G. A. Russell, biochemist, in charge.

Fiber-plant investigations.—Hemp investigations, breeding improved strains of hemp, and production of seed for distribution to seed growers. L. H. Dewey, botanist, in charge.

Forage-crop investigations.—Investigations of cowpeas, soybeans, and velvetbeans; production in quantity of seed of desirable strains; development of improved varieties through selection; testing new varieties; growing in quantity new and rare varieties of soybeans, cowpeas, and Korean lespedeza for dissemination throughout the country. W. J. Morse, agronomist, in charge.

Clover investigations; production in quantity of seed of desirable species; testing new species; cultural studies. A. J. Pieters, agronomist, in charge.

Grass investigations; production in quantity of seeds and plants for distribution; testing ne species. P. L. Ricker, assistant botanist, in charge.

Turf investigations, including production in quantity of stolons of desirable strains of creeping bent for use on golf courses; testing various grasses for suitability for golf-turf purposes; studies of cultural treatment of golf turf; alfalfa investigations, including development of superior varieties through selection. R. A. Oakley, senior agronomist, in charge.

Investigations of sorghum and millet, testing new varieties, development of new varieties of sorghums by breeding. H. N. Vinall, agronomist, in charge.

Silage investigations, growing new plants for silage purposes, preparation of silage for feeding tests at other stations. H. L. Westover, associate agronomist, in charge.

Fruit-disease investigations.—Pathological studies and experiments in orchard and greenhouse of various fruit diseases, including those in deciduous orchards, on nut trees, grapes, and small fruits, involving field inoculation tests for determining pathogenicity of certain fungi and bacteria, various tests of spraying materials, pollination experiments on fruits, breeding pears resistant to pear-blight, field experiments on crown-gall, studies of currant cane-blight fungus, orange rusts of blackberry and raspberry, and official tests of fungicides for the enforcement of the insecticide act. M. B. Waite, senior pathologist, in charge. Work directed from Washington office.

Horticultural investigations.—Fruit-production investigations, mainly systematic and varietal studies. H. P. Gould, pomologist, in charge.

Grape investigations, including studies of varieties and varietal adaptability. G. C. Husmann, associate pomologist, in charge.

Fruit and vegetable utilization investigations, including studies of unfermented fruit juices and their preparation, the fundamental principles underlying canning, and the adaptability of fruit and vegetable varieties for different methods of utilization. J. S. Caldwell, physiologist, in charge.

Cold-storage laboratory, operated in connection with studies of fruit and vegetable storage and transportation and the physiological response of fruits and vegetables to different storage conditions. L. A. Hawkins, physiologist, in charge.

Truck-crop investigations, including sweet-potato improvement, maintenance of a systematic collection of varieties, handling, curing, and storing; improvement of tomato, lettuce, and cauliflower varieties by selection, especially for forcing. J. H. Beattie, associate horticulturist, in charge.

Vegetable standardization investigations, including improvement and studies in trueness to type. D. N. Shoemaker, associate horticulturist, in charge.

Potato investigations, including effect of different storage conditions on the vitality of seed. William Stuart, horticulturist, in charge.

Nut-culture investigations. C. A. Reed, associate pomologist, in charge.

Nursery-stock investigations. G. E. Yerkes, associate horticulturist, in charge.

Bulb-culture investigations, including methods of growing, propagating, curing, and adaptability. David Griffiths, horticulturist, in charge.

Landscape gardening and floriculture investigations, including studies of plant material represented by a rose garden and extensive collections of irises, peonies, hardy chrysanthemums, and other plants. F. L. Mulford, associate horticulturist, in charge.

Soil-bacteriology and plant-nutrition investigations.—Field and greenhouse experiments on behavior of root-nodule bacteria of leguminous plants; value of commercial cultures for legumes and soil inoculation; relations existing between crops and microflora of the soil; and the influence of season, soil treatment, and manuring upon the bacterial activities in the soil. Work directed from Washington office. Felix Löhnis, senior bacteriologist, in charge.

Soil-fertility investigations.—Fertilizer experiments with various crops, including testing out of proper ratio; study of various carriers of phosphate, nitrogen, and potash; investigation of value of various fertilizer materials; study of effect on plants of harmful constituents in fertilizers; fertilizer-mixing investigations, including the preparation of all of the fertilizer mixtures used in the experimental field work at many points in the United States. Work directed from Washington office under supervision of Oswald Schreiner, senior biochemist.

Sugar-plant investigations.—Experimental work on the transmission of diseases of sugar cane and sugar beets; growing sugar-cane plants in quarantine previous to shipping to various foreign countries; and growing of sugar-cane seedlings from imported seed. E. W. Brandes, senior pathologist, in charge.

Tobacco and plant-nutrition investigations.—Plant-nutrition investigations, including effect of length of day on plant growth. W. W. Garner, senior physiologist, in charge. Work directed from Washington office.

The following divisions of the Department of Agriculture also conduct work at the Arlington Experiment Farm: Bureau of Chemistry, Bureau of Entomology, Insecticide and Fungicide Board, Bureau of Public Roads, and Bureau of Soils.

Bowling Green

State Branch Station (cooperative investigations).—Three and one-half miles north of Bowling Green, on road leading to Fredericksburg. May be reached by auto. The railroad station is Milford, about 2¾ miles southwest of Bowling Green. Telephone.

Crop-rotation studies, with special reference to tobacco. W. W. Green, agent, in charge.

Diamond Springs

Virginia Truck Experiment Station (cooperative investigations).—To reach the station, take Beach electric train from Norfolk.

Potato and nursery-stock investigations. T. C. Johnson, director, in charge.

Driver

Soil-fertility fertilizer experiments.—P S. Blanford, county agent, in charge. May be communicated with by telephone either from Norfolk or Suffolk and reached by Suffolk bus from Norfolk.

East Falls Church

Nema Field Laboratory.—To reach station, take "Falls Church" car on Washington-Virginia Railway, either at Twelfth Street and Pennsylvania Avenue NW., or at the Department of Agriculture, Fourteenth and B Streets SW., getting off at East Falls Church. The field laboratory is located about one-fourth mile east of the car stop.

Investigations of nema parasites of insects, including laboratory work, artificial infestation, etc. J. R. Christie, associate nematologist, in charge.

WASHINGTON

Bellingham

United States Plant Introduction Garden.—Two miles north of Bellingham; bus service every hour from Union Bus Station to the garden. May be communicated with by telephone.

Testing new plant introductions. B. L. Peters, scientific aid, acting in charge.

Bulb-culture investigations, particularly tulips, including cultural requirements and methods of handling many different bulbous plants, such as hyacinths, narcissus, lilies, etc. David Griffiths, horticulturist, in charge. Work directed from Washington office, with occasional field trips.

Prosser

State Irrigation Experiment Station (cooperative investigations).—Telephone R. P. Bean, the superintendent, regarding instructions for getting there.

Investigations on rate of penetration of irrigation water, the water-holding capacity of the soil, and the movement of soluble salts in the soil as influenced by various methods of irrigation and as affecting field crops. C. C. Wright, assistant agronomist, in charge.

Pullman

Agricultural Experiment Station (cooperative investigations).—About 1¼ miles from Northern Pacific Railroad station. May be reached by autobus.

Investigation of varietal resistance of wheat to bunt, or stinking smut, and hybridization for development of bunt-resistant wheats. E. F. Gaines, agent and cereal breeder, in charge.

Spokane

Blister-Rust Control Field Office.—Room 618, Realty Building, 242 Riverside Avenue. One block northwest of Northern Pacific Railroad station and four blocks southeast of Union Station.

Field direction of blister-rust control activities in the Northwestern and Pacific Coast States. S. N. Wyckoff, associate pathologist, in charge. Residence, Westminster Apartment; his address and telephone listed in directory.

Wenatchee

United States Fruit-Disease Field Laboratory.—Located in courthouse. five blocks from railroad station. May be communicated with by telephone.

Investigation of fruit diseases. D. F. Fisher, pathologist, in charge.

WEST VIRGINIA

Maggie

Branch Station of Agricultural Experiment Station (cooperative investigations).

Improvement in methods of curing tobacco and development of improved strains of Burley which are more productive and resistant to root-rot. Located near railroad station. T. C. McIlvaine, agent, in charge.

WISCONSIN

Madison

Agricultural Experiment Station (cooperative investigations).—About 2½ miles west from Chicago & North Western Railroad station. Take cars marked "Wingra Park" or "Monroe Street," which go out University Avenue, within one block of horticultural building. May be communicated with by telephone.

Investigations of pathologic and physiologic phases of wheat scab and the related rot diseases of corn; also studies on control of Helminthosporium diseases of barley. J. G. Dickson, agent and pathologist, in charge.

Investigations of cause of rosette disease of wheat and special studies on the Australian take-all of wheat. H. H. McKinney, associate pathologist, in charge.

Experiments in cultivation of varieties of hemp and general work for promotion of the hemp industry in Wisconsin. A. H. Wright, agent, in charge. Located in agronomy building.

Laboratory and field investigations of diseases of tobacco; improvement of tobacco by breeding. James Johnson, agent, in charge. Located in horticultural building.

Investigation of onion and cabbage diseases and breeding of yellows-resistant cabbage. J. C. Walker, pathologist, in charge. Located in horticultural building.

Investigation of cucumber-mosaic disease. S. P. Doolittle, pathologist, in charge. Located in horticultural building.

Forage-crop and pea root-rot disease investigations. F. R. Jones, pathologist, in charge. Located in horticultural building.

State Department of Agriculture, Office of State Entomologist.—Located in State Capitol Annex, about three blocks from railroad station and may be reached on foot or by street car.

Barberry-eradication campaign to locate and destroy cultivated and escaped bushes of the common barberry, which spreads the black stem rust of cereals. W. A. Walker, assistant pathologist and State leader, in charge.

Chemical methods of eradication and ecological studies of the common barberry in connection with the barberry-eradication campaign. N. F. Thompson, associate pathologist, in charge.

Chemical investigations of the nature of reserve food materials in the different parts of the barberry plant and their relation to time of treatment with chemicals; effect of salt and sodium arsenite on barberries and on the soil; and analysis of barberry tissues for alkaloids, such as berberine, hydrastine, and glucoside, and methods of extraction. Cooperation with chemistry department, Agricultural Experiment Station. E. R. Schulz, agent and chemist, in charge.

Cooperative control of white-pine blister rust. S. B. Fracker, cooperator, in charge.

United States Forest-Pathology Field Office.—Located in old soils building, near the horticultural building.

Investigation of diseases of structural timber and forest products in cooperation with United States Forest-Products Laboratory and University of Wisconsin. R. H. Colley, pathologist, in charge.

WYOMING

Archer

Cheyenne Experiment Farm (cooperative investigations).—One mile southeast of Archer and about 8 miles east of Cheyenne. Post office, Cheyenne. Telephone Mr. Nelson from Archer or Cheyenne regarding transportation arrangements.

Dry-land crop rotation and production. A. L. Nelson, associate agronomist, in charge.

Laramie

University of Wyoming College of Agriculture (cooperative investigations).—Located about 1 mile from center of town and may be reached on foot or by conveyance.

Barberry-eradication campaign to locate and destroy cultivated and escaped bushes of the common barberry, which spreads the black stem rust of cereals. R. U. Cotter, junior agronomist and State leader, in charge. Located in extension division.

Sheridan

United States Dry-Land Field Station.—About 7 miles northeast of Sheridan. Telephone Mr. Towle regarding transportation arrangements.

Dry-land crop rotation and production. R. S. Towle, associate agronomist and superintendent, in charge.

(Concluded from p. 2 of cover.)

Forest-Pathology Investigations.—Haven Metcalf, Senior Pathologist, in charge.

Fruit-Disease Investigations.—M. B. Waite, Senior Pathologist, in charge.

Horticultural Investigations.—L. C. Corbett, Senior Horticulturist, in charge.

Laboratory of Plant Pathology.—Erwin F. Smith, Senior Pathologist, in charge.

New and Rare Field Seed Distribution.—R. A. Oakley, Senior Agronomist, in charge.

Plant-Disease Survey and Pathological Collections.—C. L. Shear, Senior Pathologist, in charge.

Plant Physiological Investigations.—H. L. Shantz, Senior Physiologist, in charge.

Seed-Testing Laboratories.—Edgar Brown, Senior Botanist, in charge.

Soil-Bacteriology Investigations.—Felix Löhnis, Senior Bacteriologist, in charge.

Soil-Fertility Investigations.—Oswald Schreiner, Senior Biochemist, in charge.

Sugar-Plant Investigations.—E. W. Brandes, Senior Pathologist, in charge.

Tobacco and Plant-Nutrition Investigations.—W. W. Garner, Senior Physiologist, in charge.

Western Irrigation Agriculture.—C. S. Scofield, Senior Agriculturist, in charge.

ADDITIONAL COPIES
OF THIS PUBLICATION MAY BE PROCURED FROM
THE SUPERINTENDENT OF DOCUMENTS
GOVERNMENT PRINTING OFFICE
WASHINGTON, D. C.
AT
10 CENTS PER COPY